

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

**ANDREW CORZO, SIA HENRY,
ALEXANDER LEO-GUERRA, MICHAEL
MAERLANDER, BRANDON PIYEVSKY,
BENJAMIN SHUMATE, BRITTANY
TATIANA WEAVER, and CAMERON
WILLIAMS, individually and on behalf of
all others similarly situated,**

Plaintiffs,

vs.

Case No. 22 C 125

**BROWN UNIVERSITY, CALIFORNIA
INSTITUTE OF TECHNOLOGY,
UNIVERSITY OF CHICAGO, THE
TRUSTEES OF COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK, CORNELL
UNIVERSITY, TRUSTEES OF DARTMOUTH
COLLEGE, DUKE UNIVERSITY, EMORY
UNIVERSITY, GEORGETOWN UNIVERSITY,
THE JOHNS HOPKINS UNIVERSITY,
MASSACHUSETTS INSTITUTE OF
TECHNOLOGY, NORTHWESTERN
UNIVERSITY, UNIVERSITY OF NOTRE
DAME DU LAC, THE TRUSTEES OF THE
UNIVERSITY OF PENNSYLVANIA,
WILLIAM MARSH RICE UNIVERSITY,
VANDERBILT UNIVERSITY, and YALE
UNIVERSITY,**

Defendants.

MEMORANDUM OPINION AND ORDER

MATTHEW F. KENNELLY, District Judge:

Plaintiffs Andrew Corzo, Sia Henry, Michael Maerlander, Alexander Leo-Guerra, Brandon Piyevsky, Benjamin Shumate, Brittany Tatiana Weaver, and Cameron Williams have moved to certify a class of persons similarly situated on their claims against

defendants, a group of private universities. The defendants include Brown University (Brown), California Institute of Technology (CalTech), University of Chicago (Chicago), the Trustees of Columbia University in the City of New York (Columbia), Cornell University (Cornell), the Trustees of Dartmouth College (Dartmouth), Duke University (Duke), Emory University (Emory), Georgetown University (Georgetown), the Johns Hopkins University (Johns Hopkins), Massachusetts Institute of Technology (MIT), Northwestern University (Northwestern), University of Notre Dame Du Lac (Notre Dame), the Trustees of the University of Pennsylvania (Penn), William Marsh Rice University (Rice), Vanderbilt University (Vanderbilt), and Yale University (Yale). Plaintiffs allege that defendants participated in a horizontal price-fixing scheme in violation of section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1.

A key disputed issue regarding plaintiffs' motion involves testimony from their expert, Dr. Hal Singer. In conjunction with their opposition to class certification, defendants have moved to exclude much of Dr. Singer's proposed testimony, as well as the proposed testimony of two other expert witnesses, Dr. George Bulman and Elizabeth Mora. For their part, plaintiffs have moved to exclude the testimony of two of defendants' experts, Dr. Bridget Terry Long and Peter Ammon. The Court has deferred ruling on plaintiffs' motion for class certification pending further briefing regarding the adequacy of class counsel. The testimony of at least some of the parties' experts is, however, also pertinent to the defendants' pending motion for summary judgment. For this reason, and because the parties' motions regarding the experts are ripe for ruling, the Court has determined to go ahead and address those motions.

Background

The background of this case has been taken from the parties' briefs and the complaint.

A. Factual background

According to plaintiffs, defendants—all "elite, private universities"—were each "members of the '568 Presidents Group' at some point between January 1, 1998, and November 4, 2022." Pls.' Mem. in Supp. of Mot. for Class Certification at 5. The Group derived its name from Section 568 of the Improving America's Schools Act of 1994, which permitted "institutions of higher education" like defendants "to award [students admitted on a need-blind basis] financial aid only on the basis of demonstrated financial need for such aid" and "to use common principles of analysis for determining the need of such students for financial aid if the agreement to use such principles does not restrict financial aid officers at such institutions in their exercising independent professional judgment with respect to individual applicants for such financial aid." 15 U.S.C. § 1 note. "[I]nstitutions of higher education" are exempted from antitrust laws under section 568 if "all students admitted are admitted on a need-blind basis." *Id.* Section 568 defined "on a need-blind basis" as "without regard to the financial circumstances of the student involved or the student's family." *Id.* In other words, the Act permits institutions of higher education to use common principles when determining how much financial aid to offer a student—and thus, according to plaintiffs, limit competition among themselves—but avoid a federal antitrust violation so long as the institutions adhere to section 568's requirements.

According to plaintiffs, the 568 Group operated the alleged price-fixing

conspiracy by requiring each participant in the Group to adhere to an "Overarching Agreement," which plaintiffs allege included the following:

(a) to apply several core principles in awarding aid, which included the agreement to make need-based aid the primary form of financial aid and to base it on student and family "ability to pay," (b) to use the College Board's standard IM (or "Base IM") as the foundation for developing a "Consensus Methodology," (c) to use agreed-upon guidelines for applying "professional judgment" in modifying the [Expected Family Contributions] that the Consensus Methodology generated, and (d) to share information with each other regarding their annual calculations of financial aid.

Pls.' Mem. in Supp. of Mot. for Class Certification at 7.

B. Litigation history

On January 9, 2022, plaintiffs filed suit against the defendants, alleging that each "participated and are participating in a price-fixing cartel that is designed to reduce or eliminate financial aid as a locus of competition, and that in fact has artificially inflated the net price of attendance for students receiving financial aid." Second Am. Compl.

¶ 1. They have sued for actual damages or restitution. *Id.* at 70.

Defendants moved to dismiss the complaint, a motion the Court denied in August 2022. *See Carbone v. Brown Univ.*, 621 F. Supp. 3d 878, 894 (N.D. Ill. 2022).

Discovery is now complete or virtually so. The plaintiffs have moved for class certification under Federal Rule of Civil Procedure 23(a) and 23(b)(3).¹ In addition, the remaining defendants have moved for summary judgment on various grounds.

C. Plaintiffs' motion for class certification

Though the Court is not ruling on plaintiffs' motion for class certification in this

¹ Plaintiffs initially sought class certification under Rule 23(b)(2) as well, but according to plaintiffs' motion for class certification, "the alleged conspiracy disbanded in the fall of 2022, moot[ing] the need for injunctive relief." Pls.' Mem. in Supp. of Mot. for Class Certification at 1 n.1.

opinion, a brief description of the motion is needed to provide appropriate background for the expert-related motions that the Court is addressing.

Plaintiffs seek certification of the following proposed Class:

All persons who have during the Class Period (a) enrolled in one or more Defendants' full-time undergraduate programs, (b) received at least some need-based financial aid from one or more Defendants, and (c) whose tuition, fees, room, or board to attend one or more Defendants' full-time undergraduate programs was not fully covered by the combination of any types of grant or merit aid in any undergraduate year.

Pls.' Mem. in Supp. of Mot. for Class Certification at 1. This proposed Class is limited to individuals who "first enrolled in one of Defendants' full-time undergraduate programs" during the time periods outlined below. See Second Am. Compl. ¶ 223. The following individuals are excluded from the proposed Class:

Any Officers and/or Trustees of Defendants, or any current or former employees holding any of the following positions: Assistant or Associate Vice Presidents or Vice Provosts, Executive Directors, or Directors of Defendants' Financial Aid and Admission[s] offices, or any Deans or Vice Deans, or any employees in Defendants' in-house legal offices; and [a]ny person who was not a U.S. citizen or permanent resident at the time such person attended a full-time undergraduate program and received at least some need-based financial aid from one or more Defendants.

Pls.' Mem. in Supp. of Mot. for Class Certification at 1 n.3; see *also* Second Am. Compl. ¶ 224. The proposed Class also excludes "the Judge presiding over this action, his or her law clerks, spouse, and any person within the third degree of relationship living in the Judge's household and the spouse of such a person." Second Am. Compl. ¶ 224.

Plaintiffs propose to define the Class period as follows:

(a) For Brown, Dartmouth, and Emory—from fall term 2004 through June 30, 2023. (b) For Chicago—from fall term 2003 through June 30, 2014. (c) For Columbia, Cornell, Duke, Georgetown, MIT, Northwestern, Notre Dame, and Rice—from fall term 2003 through June 30, 2023. (d) For Penn—from fall term 2003 through June 30, 2019. (e) For Vanderbilt—from fall term 2003 through June 30, 2020. (f) For Yale—from fall term 2003

through June 30, 2007, and from fall term 2018 through June 30, 2023. (g) For CalTech—from fall term 2020 through June 30, 2023. (h) For Johns Hopkins—from fall term 2022 through June 30, 2023.

Singer Am. Rep. ¶ 9. This Class period is meant to reflect the specific periods when each defendant is claimed to have been a member of the 568 Group.

Discussion

The Seventh Circuit has held that "[w]hen an expert's report or testimony is 'critical to class certification,' . . . a district court must make a conclusive [*Daubert*] ruling on any challenge to that expert's qualifications or submissions before it may rule on a motion for class certification." *Messner v. Northshore Univ. HealthSystem*, 669 F.3d 802, 812 (7th Cir. 2012) (quoting *Am. Honda Motor Co. v. Allen*, 600 F.3d 813, 815–16 (7th Cir. 2010)). In addition, as the Court has noted, the testimony of at least some of the parties' experts is pertinent to the pending motion(s) for summary judgment. The Court begins by addressing defendants' motion to exclude the testimony of Dr. Hal Singer, which appears to bear on both class certification and summary judgment.

A. Motion to exclude Dr. Singer

Federal Rule of Evidence 702 governs the admissibility of expert testimony:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. More generally, the rule requires the trial judge to act as a gatekeeper and "ensure that any and all expert testimony or evidence admitted 'is not only relevant, but reliable.'" *Manpower, Inc. v. Ins. Co. of Penn.*, 732 F.3d 796, 806 (7th

Cir. 2013) (quoting *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993)).

Though *Daubert* interpreted an earlier version of Rule 702, "it remains the gold standard for evaluating the reliability of expert testimony and is essentially codified in the current version of Rule 702." *Id.*

As indicated in the language cited above, the twin concerns of *Daubert* and Rule 702 are relevance and reliability. See *Daubert*, 509 U.S. at 594–95 ("[Rule 702's] overarching subject is the scientific validity—and thus the evidentiary relevance and reliability—of the principles that underlie a proposed submission."). Relevance, as set forth in the language of Rule 702, follows the standard of Rule 401. Compare Fed. R. Evid. 702(a) (requiring a court to determine that testimony will help the trier of fact "to understand the evidence or to determine a fact in issue") with Fed. R. Evid. 401 (evidence is relevant if "(a) it has any tendency to make a fact more or less probable than it would be without the evidence; and (b) the fact is of consequence in determining the action").

"Reliability, however, is primarily a question of the validity of the methodology employed by an expert, not the quality of the data used in applying the methodology or the conclusions produced." *Manpower*, 732 F.3d at 806. The Seventh Circuit has repeatedly stated that "[t]he soundness of the factual underpinnings of the expert's analysis and the correctness of the expert's conclusions based on that analysis are factual matters to be determined by the trier of fact, or, where appropriate, on summary judgment." *Id.* (quoting *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000)); see also *Stollings v. Ryobi Techs., Inc.*, 725 F.3d 753, 765 (7th Cir. 2013) ("Rule 702's requirement that the district judge determine that the expert used reliable methods does

not ordinarily extend to the reliability of the conclusions those methods produce—that is, whether the conclusions are unimpeachable."). A court inappropriately usurps the role of the jury "if it unduly scrutinizes the quality of the expert's data and conclusions rather than the reliability of the methodology the expert employed." *Manpower*, 732 F.3d at 806.

That said, "conclusions and methodology are not entirely distinct from one another. Trained experts commonly extrapolate from existing data." *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). The Court must therefore scrutinize an expert's methodology by considering, among other factors, "(1) whether the theory has been or is capable of being tested; (2) whether the theory has been subjected to peer review and publication; (3) the theory's known or potential rate of error; and (4) the theory's level of acceptance within the relevant community." *Bielskis v. Louisville Ladder, Inc.*, 663 F.3d 887, 894 (7th Cir. 2011) (citing *Daubert*, 509 U.S. at 593–94). Put differently, a court must assess whether an expert "utilize[d] the methods of the relevant discipline" to reach opinions that are "reasoned and founded on data." *Id.* The Supreme Court has made clear that district courts have flexibility in determining whether the methodology employed is reliable under Rule 702. See *Daubert*, 509 U.S. at 594.

In seeking class certification and opposing summary judgment, plaintiffs rely on the proposed testimony of Dr. Hal Singer, an expert in economics and econometrics. In particular, plaintiffs retained Dr. Singer to address four main issues:

(1) whether Defendants collectively had sufficient market power to inflate their Effective Institutional Prices (EIPs) above competitive levels through collusion; (2) whether the Challenged Conduct ("CC") was consistent with conspiracy and inconsistent with unfettered competition and unilateral conduct; (3) whether the CC inflated EIPs to the vast majority of Class members; and (4) whether damages to the Class as a whole could be

computed with standard economic methods.

Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 1–2. Dr. Singer authored three expert reports addressing these four issues and addressing critiques from defendants' own experts. Plaintiffs also included a Declaration from Dr. Singer in response to defendants' motion to exclude his testimony.²

Defendants do not challenge Dr. Singer's qualifications but instead contend that his conclusions are unreliable. The thrust of defendants' argument boils down to three main points: (1) Dr. Singer's regression analysis, upon which he bases the bulk of his conclusions, is methodologically unreliable; (2) Dr. Singer offers certain opinions that are outside the scope of his claimed expertise; and (3) Dr. Singer's market definition is flawed because he uses the wrong methodology and his conclusions are unsupported by the data. In short, defendants contend that Dr. Singer's opinions are "junk science, beyond the scope of his expertise, or both." Defs.' Mem. in Supp. of Mot. to Exclude at 5.

1. Dr. Singer's regression analysis

Defendants contend that Dr. Singer's opinions are the result of pre-determined outcomes derived from a faulty regression. According to defendants, Dr. Singer's regression model was designed to force the results described below. Defendants highlight four specific issues with the regression analysis, which they contend

² Defendants have moved to strike Singer's declaration as untimely. See Defs.' Am. Reply in Supp. of Mot. to Exclude at 4. The Court will address these arguments later in this opinion.

"epitomizes junk science."³ *Id.* at 3.

Dr. Singer was retained to assess whether the alleged conspiracy existed and, if so, whether it caused classwide antitrust impact. To make this determination, Singer employed a two-step method. He claims the data shows, first, that class members paid artificially inflated prices and, second, that substantially all class members were impacted by this price inflation. At a general level, this two-step method has been "broadly accepted" as a reliable means to show antitrust impact across a class. See, e.g., *In re Broiler Chicken Grower Antitrust Litig. (No. II)*, No. 6:20-md-02977-RJS-CMR, 2024 WL 2117359, at *29 (E.D. Okla. May 8, 2024) (hereinafter *Chicken Grower*) (relying on Dr. Singer's "broadly accepted two-step method" to certify a Rule 23(b)(3) class); *In re Restasis Antitrust Litig.*, 335 F.R.D. 1, 15 (E.D.N.Y. 2020) (finding that the expert relied on the "commonly accepted two-step method to prove classwide injury-in-fact"). At a high level, Singer's model first measures the effect, if any, of the challenged conduct by comparing the price that Class members actually paid "against a benchmark that involved pricing during periods where Defendants were not formally part of the 568 Group." Singer Am. Rep. ¶ 227. Having found that the challenged conduct did result in inflated prices, Singer next runs an in-sample regression to determine whether this price inflation impacted members across the Class. See *id.* ¶¶ 252–255. Singer describes this as a "before-after methodology" and contends that "this standard empirical approach enjoys frequent application in both research and litigation." *Id.* ¶ 227.

Because defendants challenge many aspects of Singer's regression, it is worth

³ Throughout their motion, defendants repeatedly refer to the regressions of Drs. Singer and Bulman as junk science. The frequency with which defendants use this term does not make their argument more convincing.

discussing the model in some detail. In Step 1, Dr. Singer uses an "impact regression . . . to determine whether the [challenged conduct] caused Class members to pay artificially inflated Effective Institutional Price (EIP)." Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 8. EIP is a different metric from net price, which has a statutory definition:

The term "net price" means the average yearly price actually charged to first-time, full-time undergraduate students receiving student aid at an institution of higher education after deducting such aid, which shall be determined by calculating the difference between the institution's cost of attendance for the year for which the determination is made and the quotient of the total amount of need-based grant aid and merit-based grant aid, from Federal, State, and institutional sources, provided to such students enrolled in the institution for such year, and the total number of such students receiving such need-based grant aid or merit-based grant aid for such year.

20 U.S.C. § 1015a(a)(3).⁴ Singer's EIP, on the other hand, is "the cost of attendance minus institutional need-based grants and scholarships." Singer Am. Rep. ¶ 7.

According to Singer, "[s]ubtracting third-party grants and scholarships from the Effective Institutional Price would yield the net price" as defined by the Department of Education.

Id. Singer says that he utilizes EIP rather than net price "because it is the effective price that Defendants charge, after deducting the institutional aid they provide (but without considering grant aid that federal and state governments, and other third-party sources, may provide)." *Id.*

⁴ This statutory definition is codified in a section titled "Transparency in college tuition for consumers." See 20 U.S.C. § 1015a. The statutory definition is meant to ensure that the net price listed on the "College Navigator website" operated by the Department of Education is calculated using a uniform standard for the purposes of tuition transparency for prospective students. See, e.g., *id.* § 1015a(b) ("In making the calculations regarding . . . net price, . . . with respect to a public institution of higher education, the Secretary shall calculate the . . . net price . . . at such institution in the manner described in subsection (a) . . .").

The results of Singer's Step 1 impact regression show that participation in the 568 Group "artificially inflated [EIP] by \$1,485 on average per Class Member-academic year as a result of the Challenged Conduct." *Id.* ¶ 249; see *id.* Table 11. After adjusting his impact regression to account for a number of defendants' rebuttal experts' proposed "data-processing adjustments," Dr. Singer found an "artificial overcharge of \$1,202 per Class Member and academic year." Singer Rebuttal Rep. ¶¶ 72, 150; see *id.* Table 6. This second impact regression, upon which plaintiffs primarily rely, utilizes data from 701,220 observations. See *id.* Table 6.

Step 2 of Singer's two-step method utilizes the findings from Step 1 to "demonstrate how the generalized price effect captured in [Singer's] regressions impacted all or almost all Class Members." Singer Am. Rep. ¶ 217. At Step 2, Singer uses both qualitative and quantitative evidence and conducts several analyses to determine whether the impact indicated from Step 1 was felt classwide. These analyses include a "common shock" analysis and a series of regression analyses utilizing the qualitative data. Singer also deploys one quantitative method: "a standard statistical methodology called 'in-sample prediction,'" which he contends "is capable of identifying individual class members who may have escaped injury in the presence of generalized (inflationary) price effects." Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 10 (citing Singer Am. Rep. ¶¶ 255–261). According to plaintiffs, Singer's in-sample prediction corroborates the findings of Step 1 and shows that the alleged conspiracy resulted in common impact across the class.

Defendants contend that Dr. Singer's regression models are the result of manipulations of data and flawed methodologies. They dispute Singer's use of EIP as

the dependent variable in his impact regression formula and the manner in which he selected and cleaned his data, and they challenge specific data that he excludes or includes to reach his results. Defendants also contend that Singer's impact regression *imposes* common impact. Specifically, defendants challenge Singer's decision to utilize a single variable for the challenged conduct. They contend that, by using a single conduct variable, Singer's analysis assumes that all defendants participated in the alleged scheme in the same manner simply by being members of the 568 Group. According to defendants, this assumption results in a regression that forces a showing that students paid a higher EIP and were thus impacted by the challenged conduct. Defendants further challenge Singer's in-sample regression, arguing that it similarly "imposes" a finding of impact and is based on an unreliable methodology and therefore must be excluded.

a. Singer's use of EIP

First, defendants contend that Singer's regression model is irrelevant to the issue of antitrust injury because it measures EIP, which they contend is an invented metric and not the actual net price students paid during the Class period. Defendants argue that EIP is almost always higher than net price because it omits numerous sources of financial aid. According to defendants, EIP is not relevant to the issue of whether students paid an overcharge because overcharge is "measured by the difference between the price paid and what the market or fair price would have been." Defs.' Mem. in Supp. of Mot. to Exclude at 6 (quoting *Hanover Shoe, Inc. v. United Shoe Mach. Corp.*, 392 U.S. 481, 489 (1968)). Defendants thus contend that using EIP does not reflect the *actual* price students paid because it does not reflect the full scope of

financial aid from federal and state governments or other third parties. And because it does not reflect the actual price paid, defendants say, EIP cannot be used to support a conclusion that students were overcharged due to the challenged conduct.

The Court does not find these arguments persuasive. First of all, the alleged conspiracy involves coordination by the defendants to reduce competition by setting a cap on how much need-based financial aid a school could offer based on a student's family income and assets. The allegation, in other words, is that defendants specifically limited one category of financial aid to prevent "bidding wars" among themselves. Pls.' Mem. in Supp. of Mot. for Class Certification at 7. Given the nature of the alleged conspiracy, it is beside the point whether an individual student, or even every student admitted, obtained additional funds from sources other than need-based financial aid from a university.

Singer explains why he opted to use EIP rather than net price, and the Court finds his explanation logical. Singer was retained to test whether a specific category of funding was manipulated by defendants, consistent with plaintiffs' allegations regarding the nature of the claimed conspiracy. Consistent with this, he constructed a regression analysis that elected to use a particular dependent variable rather than another—that is, EIP instead of net price. "[T]he selection of the variables to include in a regression analysis is normally a question that goes to the probative weight of the analysis rather than its admissibility." *Manpower*, 732 F.3d at 808. Should defendants wish to raise their issues regarding EIP, the proper place to do so is on cross-examination. Whether Singer selected the "best data set to use" when opting to measure EIP instead of net price "is a question for the jury, not the judge." *Id.* at 809.

b. Singer's selection of data

Second, defendants challenge the data that Singer included in and excluded from his regression. According to defendants, Singer selected only the data that produced an overcharge when fed into his model and disregarded the rest. They contend that Singer's regression is unreliable due to selection bias. See *Joiner*, 522 U.S. at 146 ("A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.").

Defendants raise four specific issues regarding Singer's dataset. First, Singer "excludes students whose institutional grant aid covered more than 95% of the cost of attendance," who Singer refers to as full-ride students. Defs.' Mem. in Supp. of Mot. to Exclude at 6. According to defendants, this results in an exclusion of "more than 83,000 observations across more than 40,000 students." *Id.* Next, "Singer excludes data from non-defendant 568 Group members." *Id.* at 8. Third, "Singer omits 2016-2023 data from the University of Chicago." *Id.* at 9. Finally, defendants say, "Singer includes fundamentally unreliable data." *Id.* at 11. Specifically, Singer utilizes data from the 2024–2025 academic year as evidence of a "clean" benchmark period after the 568 Group had disbanded and the alleged conspiracy ended. Defendants contend, however, that this data is "incomplete" because it only contains "estimates of students' non-final early decision and early application [financial aid] awards." *Id.* Singer also uses data from the 2023–2024 academic year, another allegedly "clean" benchmark period, which defendants challenge as incomplete because "six defendants report no paid financial aid awards at all; Caltech reports only about ¼ as many institutional aid awards as in 2022; and Duke reports more than 90% fewer institutional grants offered

than in 2022." *Id.*

Defendants' arguments, at base, amount to contentions that Singer used the wrong data for his regression. But whether Singer used the wrong data, or even incorrect or incomplete data, goes to the weight to be afforded to his model. See *Manpower*, 732 F.3d at 809 ("Whether [the expert] selected the best data set to use, however, is a question for the jury, not the judge. Assuming a rational connection between the data and the opinion—as there was here—an expert's reliance on faulty information is a matter to be explored on cross-examination; it does not go to admissibility."). This is not grounds for exclusion under *Daubert* and Rule 702; the Supreme Court, the Seventh Circuit, and numerous other courts have repeatedly emphasized this point. See *id.* at 808 ("[T]he Supreme Court and this Circuit have confirmed on a number of occasions that the selection of the variables to include in a regression analysis is normally a question that goes to the probative weight of the analysis rather than to its admissibility."); *Bazemore v. Friday*, 478 U.S. 385, 400 (1986) (per curiam) ("Normally, failure to include variables will affect the analysis' probativeness, not its admissibility."); *In re Allstate Corp. Secs. Litig.*, No. 16 C 10510, 2022 WL 842737, at *9 (N.D. Ill. Jan. 10, 2022) ("[D]isagreements over which time period to use or how to weight individual states reflect a classic dispute among the experts over the choice of inputs, which is inappropriate to resolve at this *Daubert* juncture."); *In re Mushroom Direct Purchaser Antitrust Litig.*, No. 06-0620, 2015 WL 5767415, at *12 (E.D. Pa. July 29, 2015) ("Even if the data relied on by the expert is imperfect, and more (or different) data might have resulted in a better or more accurate estimate in the absolute sense, it is not the district court's role under *Daubert* to

evaluate the correctness of facts underlying an expert's testimony." (cleaned up)).

Accordingly, defendants' assertion that Singer's regression does not include all of the purportedly relevant data, or even that it omits large chunks of data, does not provide a viable basis under *Daubert* for exclusion of his opinions.

That said, defendants are correct that Singer does not have carte blanche to make decisions about what data to utilize for his regression analysis. An expert, for instance, may not "rely on data that has no quantitative or qualitative connection to the methodology employed." *Manpower*, 732 F.3d at 808. In addition, the text of Rule 702 requires a court to determine that an expert's "testimony is based on sufficient facts or data," and thus a court must assess whether "the expert considered sufficient data to employ the methodology." *Id.* (first quoting Fed. R. Evid. 702(b), then quoting *Stollings*, 725 F.3d at 766). And "an expert must employ 'those kinds of facts or data' on which experts in the field would reasonably rely." *Id.* (quoting Fed. R. Evid. 703).

The Court concludes that none of the points defendants raise regarding Dr. Singer's data set make his regression unreliable under *Daubert* and Rule 702 such that it should be excluded. Nothing that defendants point to indicates an impermissibly biased selection of data. As a starting principle, Singer may select the data that he concludes is appropriate so long as other experts in the economics and econometrics field would do the same. That is the case here.

For instance, concern that Singer omitted "more than 83,000 observations" of full-ride student data does not automatically mean that Singer's model is unreliable. See *id.* at 807 ("[T]he selection of data inputs to employ in a model is a questions separate from the reliability of the methodology reflected in the model itself."). Singer

defends his choice to exclude full-ride students by emphasizing that his assignment was to measure any potential effect of the challenged conduct on members of the proposed Class, which expressly excludes students "whose tuition, fees, room, or board to attend one or more of Defendants' full-time undergraduate programs *was not fully covered* by the combination of any types of grants or merit aid in *any undergraduate year*." See Singer Am. Rep. ¶ 8. Defendants point out that Singer omitted data from students who received "only" 95% of their tuition in aid, noting that these students are not "full-ride" students in the literal sense, as they had to make up the 5% not covered by grants or other financial aid. But again, Singer explains that he excluded these students for a valid reason: "the available data indicates the average COA for full-time *on campus* students per school per year. But many students live off-campus which tends to be cheaper, and thus incurs [sic] a lower COA than the available data would indicate." Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 19 n.37. Put differently, Singer's decision to classify students receiving 95% financial aid as full-ride, and then to exclude these students from his sample, was part of his data-cleaning process (more on this below). In order to properly assess impact on plaintiffs' proposed class, Singer contends that it is necessary to construct a regression that utilizes data from potential class members only. Plaintiffs argue that Singer accordingly used his knowledge and understanding of how available data may not adequately convey the nuances of a student's financial obligations (i.e., that COA differs between on-campus and off-campus students in ways not reflected in the data) to justify removing these 95%-funded students from his sample. Further, omitting 83,000 observations may mean that an expert's opinions are not based on sufficient facts or data, but such a determination is context-specific. Here,

Singer's regression model contains over 700,000 observations, even without the additional 83,000 observations from full-ride students. See Singer Rebuttal Rep., Table 6. This is a sufficient dataset to run his regression.⁵

The Court is also unpersuaded that Dr. Singer's exclusion of certain post-2015 data from University of Chicago renders his regression unreliable. Singer explains that Chicago changed database software in 2016, and as a result roughly forty percent of the observations in the post-2015 data do not distinguish university aid from third-party aid. See *id.* ¶ 110. Singer contends that he reviewed the post-2015 data and "found that Chicago did not maintain consistency in how it recorded data" when switching software. *Id.* As a result, Singer opted to exclude this post-2015 data as part of his data-cleaning process. Data cleaning is a standard process; it is listed as one of the "Ten Commandments of Applied Econometrics" in the late economist Peter Kennedy's textbook, *A Guide to Econometrics*. See Peter Kennedy, *A Guide to Econometrics* 362–64 (6th ed. 2008). "Data cleaning looks for inconsistencies in the data—are any observations impossible, unrealistic, or suspicious?" *Id.* at 364. According to Singer, that is precisely what he did: reviewed the data from University of Chicago, found that the post-2015 data presented "implausible" "inconsistenc[ies]," and determined to exclude it. Singer Rebuttal Rep. ¶ 111; see *also id.* ¶¶ 110–113, Fig. 1. The Court finds that there is a rational and reasonable basis for Singer's decision to exclude this post-2015 University of Chicago data. Defendants' arguments that this data makes Singer's opinions less probative are appropriately addressed to the jury via cross examination

⁵ Defendants' challenges regarding the exclusion of data from non-defendant members of the 568 Group are unpersuasive for similar reasons.

and presentation of contrary evidence, not by excluding his opinions.

Finally, defendants' contention that Singer included incomplete data from the 2023–2024 and 2024–2025 academic years amounts to an argument about the weight a factfinder should assign to his regression. The Court's task here is focused on determining whether there is "a rational connection between the data and the opinion," *Manpower*, 732 F.3d at 809, such that Singer's opinion "is [not] connected to existing data only by [his] *ipse dixit*." *Joiner*, 522 U.S. at 146. There appears to be no question that the data from these years that Singer included is relevant; the question is whether he should have excluded it because it is incomplete. But whether Singer relied on incomplete, "faulty information is a matter to be explored on cross-examination." *Manpower*, 732 F.3d at 809.

c. Singer's impact regression

Defendants also argue that Dr. Singer's impact regression from Step 1 of his model imposes a finding of common impact by "assuming that each defendant engaged in the challenged conduct in the exact same way, without change, over the entire period he analyzed." Defs.' Mem. in Supp. of Mot. to Exclude at 12. Singer's impact regression measures the effect of the challenged conduct on EIP by "us[ing] a single conduct variable across all Defendants and academic years" to "produce a single, common overcharge." Singer Rebuttal Rep. ¶ 74. Defendants contend that this is a flawed analysis because it assumes each defendant adhered to the challenged conduct by virtue of membership in the 568 Group. This assumption, according to defendants, is "implausible because the challenged conduct differed between defendants and changed over time." Defs.' Mem. in Supp. of Mot. to Exclude at 12.

The Court is not persuaded by defendants' arguments that the differences in conduct among defendants or across time render Singer's impact regression unreliable and therefore inadmissible. The fact that different schools changed how they packaged aid over time does not really influence Singer's impact regression. Nor does defendants' argument that schools differed in how they applied the CM Guidelines and thus how they are claimed to have engaged in the challenged conduct. Singer was assigned to test whether the conspiracy that plaintiffs allege could have existed. The fact that he utilized a single, uniform conduct variable to test for a conspiracy appears to the Court to be plausible and reasonable. In a given conspiracy, though all members must be shown to have adopted the conspiracy's goals, that does not mean that for a conspiracy to exist, all of them have to do the same thing to carry out those goals. In other words, not every school needed to package aid in exactly the same way, or adhere to precisely the same CM Guidelines, to have agreed to the conspiracy and engaged in at least some of the challenged conduct.

In this regard, Singer's model does not impose a finding of common impact. Rather it tests for one, using variables that are rationally connected to what Singer was testing for. Though defendants bring up several fair points that may limit or undermine the probative value of Singer's impact regression, that is a matter regarding the weight to be given to the analysis, not a basis for its exclusion.

d. Singer's in-sample regression

Defendants' final argument against Singer's regression analysis targets his in-sample regression from Step 2 of his model. Defendants contend that the in-sample regression is flawed in part because it relies on the results from Singer's impact

regression. The Court has already addressed the reliability and admissibility of Singer's impact regression from Step 1, and thus for the reasons the Court has described defendants' argument that the in-sample regression is faulty because of its reliance on the impact regression is unavailing.

Defendants also argue that the in-sample regression is flawed and should be excluded for reasons independent of the results of Step 1. They contend that Singer's in-sample regression "shows wildly varying results between years for many students," yet his analysis nevertheless indicates that these students suffered "an identical average annual overcharge for them and nearly every other class member." *Id.* at 16. According to defendants, this and results like it indicate that the model is unreliable and "mathematically rigged to artificially show harm." *Id.* at 17. Defendants attribute this flaw to "a critical methodological error." *Id.* at 18. According to defendants:

Singer's regression calculates the difference between a class member's actual EIP and the hypothetical "but-for" EIP. The "but-for" EIP has two components: (1) the uniform effect the model attributes to the challenged conduct and (2) the regression's "residual," which represents unexplained price variation. But by incorporating student fixed effects, Singer mathematically ensures that the residuals for each student's observation will sum to zero. This technical constraint leads to a predetermined outcome: students with observations entirely during the defendant-schools' 568 Group membership will *always* show a net harm equal to Singer's average EIP overcharge multiplied by the number of observations for that students.

Id. Put differently, defendants contend that Singer's in-sample regression is designed to always reflect a \$1,202 overcharge from the impact regression. Because this \$1,202 overcharge occurs each year, a student whose enrollment in a defendant school overlaps entirely with the defendant's membership in the 568 Group will show a net harm of \$4,808—\$1,202 multiplied by four years of attendance.

Defendants further contend that, when questioned about these results during his deposition, Dr. Singer "concede[d] his regression model is unreliable." *Id.* at 17.

Defendants highlight a particular instance of a student who attended Cornell; Singer's in-sample regression shows that the challenged conduct harmed the student "by \$1,282 in year one, harmed this student by \$4,030 in year two, and *benefited* this student by \$9,487 in year three, only to have again harmed the student in year four by \$8,983, for a total overcharge of \$4,808 over four years." *Id.* at 16–17. When asked about these results, and specifically the in-sample model showing a \$9,487 undercharge, Singer responded that his model "just could not have predicted that this student would" have a lower EIP for the third year and that, ultimately, "[t]he regression can't explain why it was so low." *Id.* at 17 (citing Singer Dep. 270:9–273:6). Singer's inability to explain these allegedly implausible results, defendants contend, warrants exclusion of the in-sample regression under *Daubert* and Rule 702.

The Court is not persuaded by defendants' arguments. After a thorough review of Singer's in-sample regression and his reasons justifying it, including during the *Daubert* hearing (during which Singer testified), the Court is persuaded that his methodology was reliable and does not force a result, as defendants contend. Regarding the example of the Cornell student referenced above, as well as other students that defendants highlighted during the *Daubert* hearing, it is unsurprising that a sample as large as the one Singer used for the in-sample regression would yield some unexpected results. Singer's in-sample regression analysis includes data from 224,744 Class members. See Singer Am. Rep., Table 12. In simplest terms, a "[r]egression analysis permits the comparison between an outcome (called the dependent variable)

and one or more factors (called independent variables) that may be related to that outcome." *Manpower*, 732 F.3d at 808; see also Daniel L. Rubinfeld, *Reference Guide on Multiple Regression*, in *Reference Manual on Scientific Evidence* 333–36 (3d ed. 2011). According to Professor Daniel Rubinfeld, "[m]ultiple regression analysis . . . is a method in which a regression line is used to relate the average of one variable—the dependent variable—to the values of other explanatory variables." Rubinfeld, *supra*, at 334. A regression analysis can "predict the value of one variable using the values of others" as indicated by a "regression line," which is "the best-fitting straight line through a set of points in a scatterplot." *Id.* at 334–35. In other words, a regression will always have instances where some datapoints are below the regression line, and some are above. And in a sample as large as the one Dr. Singer used for his in-sample regression, it is unsurprising that there would be instances in the data that are far above or far below the regression line.

In response to defendants' critiques, Singer conducted another in-sample regression. As an initial matter, defendants contend that Singer's declaration containing this new in-sample regression should be stricken as untimely according to Federal Rule of Civil Procedure 26(a)(2), which sets forth requirements for disclosure of expert testimony. Defendants say that this declaration was filed after the close of expert discovery and "address[es] criticisms defendants' expert made months" prior. Defs.' Am. Reply in Supp. of Mot. to Exclude at 4. They contend that this deprives them of a meaningful opportunity to respond, and they argue that this prejudice "cannot be cured without imposing undue costs or case delays." *Id.* The defendants therefore contend that exclusion of the declaration is "automatic and mandatory" under Rule 37(c)(1). *Id.*

at 5 (quoting *Karum Holdings LLC v. Lowe's Cos.*, 895 F.3d 944, 951 (7th Cir. 2018)). Under that rule, plaintiffs may rely on Singer's so-called untimely declaration only if their "failure" to adhere to the discovery deadline "was substantially justified or is harmless." Fed. R. Civ. P. 37(c)(1). Defendants contend that plaintiffs can make neither showing.

The Seventh Circuit has instructed courts to consider the following factors when determining whether to exclude testimony under Rule 37: "(1) the prejudice or surprise to the party against whom the evidence is offered; (2) the ability of the party to cure the prejudice; (3) the likelihood of disruption to the trial; and (4) the bad faith or willfulness involved in not disclosing the evidence at an earlier date." *David v. Caterpillar, Inc.*, 324 F.3d 851, 857 (7th Cir. 2000).

The Court overrules defendants' request to exclude Singer's declaration under Rule 37. In particular, the Court is unpersuaded that the defendants have been harmed by the timing of the declaration or face prejudice or surprise. In particular, they have had a full and fair opportunity to address the in-sample regression offered by Singer in this declaration in writing as well as orally, in connection with the *Daubert* hearing. And the other enumerated factors do not support exclusion under Rule 37 (among other things, there is no indication of bad faith or willfulness). Therefore, the Court declines to exclude Singer's declaration.

Returning to defendants' arguments regarding Singer's in-sample regression, they contend that "students *with observations entirely during the defendant-schools' 568 Group membership* will *always* show a net harm equal to Singer's average EIP overcharge multiplied by the number of observations for that student." Defs.' Mem. in Supp. of Mot. to Exclude at 18 (first emphasis added). Singer therefore ran an in-

sample regression using only "Class members who attended Yale during the period overlapping when it was in and when it was out of the 568 Group." Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 14. In other words, Singer's so-called Yale Model addresses defendants' concerns by using data from students whose observations are *not* entirely during the defendant-schools' 568 Group membership. These students are dubbed "straddlers" because their attendance straddles the defendant schools' membership in the 568 Group and, accordingly, the analysis should include data from periods when Yale was allegedly participating in the alleged conspiracy and periods when it was not.

Singer's Yale Model indicates that "81 percent of these transactions⁶ were impacted—that is, 81 percent of this subset of transactions occurring prior to Yale having left the 568 Group in 2008 show higher actual Effective Institutional Prices than the predicted but-for prices." Singer Suppl. Rebuttal Rep. ¶ 72. Defendants' rebuttal expert, Dr. Stiroh, claims that in a "hypothetical scenario where the overcharge is zero, half of the *transactions* would show up as being harmed (i.e., having a higher actual price than the but-for predicted price)." *Id.* ¶ 71. This makes sense, given the explanation of how a regression line operates. If the in-sample regression showed no harm from the challenged conduct, then a "best-fitting line" drawn through the middle of the scattered transactions would be 50/50 because any overcharges would be balanced out by corresponding undercharges. The Yale Model shows that 81 percent of transactions resulted in harm, meaning that 81 percent of the data points were above

⁶ Singer defines a "transaction" as "an observation in the data—that is, a specific Class Member-academic year instance." Singer Suppl. Rebuttal Rep. ¶ 71.

the regression line. This tends to support the proposition that Singer's other in-sample models were not forcing a result but rather were reflecting a common impact.

Put differently, Singer addressed defendants' concerns by running the Yale Model. This model continues to show a high level of common impact, which tends to support the proposition that his other in-sample regressions are reliable. Otherwise, the results would diminish upon changing the regression to account for defendants' contention regarding straddlers. Singer's Yale Model does show an impact—though admittedly less than the impact shown from his other in-sample regressions. Still, the Court is persuaded that Singer's methodology is reliable. Other experts have used this methodology in antitrust cases, and the econometrics literature reflects that this is an acceptable model for calculating antitrust impact. Further, the numerous in-sample regressions that Singer ran support his conclusion that the impact from the challenged conduct was shared across the class even after incorporating critiques from defendants' experts. As with the other challenges to Singer's regression analysis, issues regarding the data used and the conclusions reached from the in-sample regression are appropriately addressed by cross-examination and presentation of contrary evidence, not by exclusion of Singer's analysis.

In sum, none of the defendants' arguments regarding Dr Singer's regression analysis persuades the Court that it is unreliable and should be excluded under *Daubert* and Rule 702.

2. Dr. Singer's opinions allegedly outside the scope of his expertise

Defendants next contend that Dr. Singer attempts to offer opinions outside the scope of his economic expertise by "(1) restating cherry-picked evidence without any

methodology; and (2) musing about defendants' intent." Defs.' Mem. in Supp. of Mot. to Exclude at 20. Specifically, defendants challenge the opinions contained in Part II of Singer's amended report, in which he opines that "the record evidence cited herein" supports the allegation that "Defendants engaged in the alleged conspiracy to suppress the institutional grant aid and to artificially inflate Effective Institutional Price, and inconsistent with unfettered competition and unilateral conduct." Singer Am. Rep. ¶ 124. Defendants contend that these opinions are "impermissible assertions about defendants' intent" or are "high-level conclusions with no accompanying scientific methodology." Defs.' Mem. in Supp. of Mot. to Exclude at 21.

Defendants first argue that Dr. Singer simply collected and summarized evidence favorable to plaintiffs' theory of conspiracy and ignored documents contradicting that theory. See Singer Dep. 329:6–9 (when asked whether Singer looked for documents "that contradict [his] opinions," he replied that he did not "go look[ing] for them"). Defendants assert that for this reason, Singer's opinions that defendants' actions regarding financial aid packaging are inconsistent with unfettered competition and unilateral conduct must be excluded. See *Smith v. Ill. Dep't of Transp.*, 936 F.3d 554, 558–59 (7th Cir. 2019) (excluding an expert who "omitted a substantial set of facts from his analysis, and instead relied only on what appears to be plaintiff-curated records"). The Court reads this aspect of defendants' motion to be limited to challenging the qualitative evidence Singer relied upon, as opposed to the quantitative evidence.

Defendants further contend that Singer's opinions regarding how the challenged conduct may have affected financial aid packaging should be excluded because his analysis in this regard relies on this allegedly cherry-picked and biased reading of the

record and not on a reliable methodology. In particular, defendants argue that the qualitative evidence Singer relied on consists only of "cherry-picked deposition statements from Notre Dame's Director of Financial Aid, a consulting expert, and a College Board representative." Defs.' Mem. in Supp. of Mot. to Exclude at 22 (citing Singer Am. Rep. ¶¶ 188–191). According to defendants, Singer "ignored the copious evidence showing that there was no agreement on packaging." *Id.* Finally, defendants contend that Singer's findings regarding financial aid packaging are "contradicted by the record." *Id.* at 23.

The Court is unpersuaded that Dr. Singer impermissibly "cherry-picked" record evidence such that his opinions are, as a result, unreliable and subject to exclusion under Rule 702. As an initial matter, defendants' argument that Singer did not review significant portions of the factual record appropriately goes to the weight to be afforded to his opinions, not their admissibility. *See Manpower*, 732 F.3d at 808 (finding that "the selection of variables . . . is normally a question that goes to the probative weight of the analysis rather than to its admissibility"). Dr. Singer is not required to select what defendants consider to be the "best" record data to consider when reaching his conclusions, and a court should not "assess the quality of the data inputs" lest it risk invading the province of the jury. *Id.* at 806–07. Instead, a court assesses only whether there is "a rational connection between the data and the opinion." *Id.* at 809. Here, Singer's findings, as outlined in his expert report, are rationally connected to the data upon which he relies.

Defendants also contend that Dr. Singer seeks to offer opinions regarding defendants' state of mind. For example, defendants point out statements in Singer's

expert report in which he addresses defendants' perceptions of themselves, their intent with respect to the 568 Group and Consensus Methodology, and what various defendants may have concluded or the practices they may have adhered to. See Defs.' Mem. in Supp. of Mot. to Exclude, App'x (listing paragraphs where defendants allege Singer offered impermissible state-of-mind testimony). Defendants argue that expert opinions regarding intent must be excluded under Rule 702. See *United States v. Schultz*, No. 14 CR 467-3, 2016 WL 7409911, at *3 (N.D. Ill. Dec. 22, 2016) (collecting cases).

To the extent that Singer actually does opine on any given defendant's state of mind, the Court agrees that such opinions would be outside the scope of testimony that is permissible under Rule 702. That said, impermissible state-of-mind opinions can easily be excised without impacting Dr. Singer's overall conclusions. At this phase, the Court finds that defendants have not shown that Dr. Singer's ultimate conclusions should be excluded. Determining the specific parameters for and limitations upon Singer's testimony on these points is best addressed during the pretrial phase.

3. Dr. Singer's market definition

Finally, defendants challenge the reliability of the methodology Singer employed for his proposed market definition. Singer defines the relevant market as "Elite Private Universities whose undergraduate programs consistently ranked in the [U.S. News and World Report] Top 25 during the Class Period." Singer Am. Rep. ¶ 72. According to defendants, this market definition "is contradicted by the economic literature Singer cites and his own revealed-preferences analysis, does not find support in his so-called *Brown Shoe* factor analysis, and 'ignores' 'significant competition' where 'competition exists.'"

Defs.' Mem. in Supp. of Mot. to Exclude at 23 (quoting *In re IBM Peripheral EDP Devices Antitrust Litig.*, 481 F. Supp. 965, 978 (N.D. Cal. 1979)). Because Singer reaches "illogical conclusions, drawn from an unreliable methodology," defendants contend, his opinion regarding the definition of the relevant market must be excluded. *Id.*

The Court is not persuaded that any of the deficiencies alleged by defendants warrant excluding Dr. Singer's opinion regarding the relevant market definition. As plaintiffs correctly point out, defendants' arguments on this point are largely directed towards Dr. Singer's conclusions. But challenges related to what evidence Singer relied upon (or disregarded) to reach his conclusions, or arguments that Singer's conclusions are contrary to the results of his studies, are more appropriate for cross-examination and presentation of contrary evidence; they do not justify exclusion under Rule 702. *See Manpower*, 732 F.3d at 809 ("[A]n expert's reliance on faulty information is a matter to be explored on cross-examination; it does not go to admissibility.").

Singer contends in his report that he is able to demonstrate defendants' collective market power through both direct and indirect evidence. As direct evidence, Singer points to his impact regression. Singer asserts that he was able to show through his impact regression analysis that defendants "artificially inflated the Effective Institutional Price during the Class Period to an economically and statistically significant degree," which would not have been possible "unless [defendants] collectively held market power over Class Members in the first place." Singer Am. Rep. ¶ 63. In his report, Singer cites to multiple scholarly articles supporting the proposition that "[e]conomists can demonstrate market power directly via evidence that Defendants raised prices over

competition levels or excluded rivals." *Id.* ¶ 62; *see, e.g.*, Aaron S. Edlin & Daniel J. Rubinfeld, *Exclusive or Efficient Pricing? The Big Deal Bundling of Academic Journals*, 72 Antitrust L.J. 119, 126 (2004) ("[I]f power [over price] can be shown directly, there is no need for market definition: the value of market definition is in cases where power cannot be shown directly and must be inferred from sufficiently high market share in a relevant market."). The Court has already concluded that Singer's impact regression model is reliable and thus admissible; the challenges that defendants assert against this model involve the weight to be given to particular evidence and are not an appropriate basis for exclusion.

Singer's report also addresses indirect evidence of market power. Singer utilizes the factors laid out in *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962), to show the existence of the relevant market. These factors focus on "practical indicia" of market boundaries and include "industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors." *Id.* at 325. In assessing the *Brown Shoe* factors, Singer conducted the following additional analyses:

(1) [A] "peer analysis" quantifying the extent to which [elite private universities] perceived their undergraduate services as a separate market; (2) an analysis showing students were willing to travel longer distances (demonstrating product differentiation); and (3) a study of students' "revealed preferences," evaluating whether (and finding that) students "admitted to an institution in the relevant market consider and prefer other institutions in the relevant market more than institutions not in the relevant market."

Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 23 (internal citations omitted). Singer also uses a hypothetical monopolist test (HMT), "which evaluates a relevant market as

the smallest grouping of firms that would need to be combined through merger or collusion to sustain price increases substantially above the competitive levels for a significant amount of time." Singer Am. Rep. ¶ 64.

The Court finds that these methods of showing market power through indirect proof are the types of tests that experts in the field would employ, and that Singer applied these methods reliably. Courts have "routinely rel[ied] on the *Brown Shoe* factors to define the relevant product market," *FTC v. Staples, Inc.*, 190 F. Supp. 3d 100, 118 (D.D.C. 2016), and "[a]ll factors need not be satisfied for the Court to conclude that [the plaintiff] has identified a relevant market." *FTC v. IQVIA Holdings Inc.*, 710 F. Supp. 3d 329, 355 (S.D.N.Y. 2024). The peer analysis, distances-travelled analysis, and revealed-preferences analysis that buoy Singer's *Brown Shoe* analysis all rely on publicly available data or data supplied by defendants. And though Singer employed a modified version of the HMT, he explains in his report why he made the modifications. See Singer Am. Rep. ¶¶ 79–81. Based on these explanations, the Court finds that Singer's use of the modified HMT does not deviate from the traditional HMT in a way that makes his findings unreliable. And again, the soundness of the conclusions reached from the HMT is appropriately addressed on cross-examination or by presentation of contrary evidence, not by exclusion.

To recap: the Court is not persuaded by defendants' arguments for exclusion of all or parts of Dr. Singer's opinions and analysis. After a thorough review of his report, multiple briefs, and an evidentiary hearing, the Court is persuaded that Singer has employed reliable methodologies in a reliable fashion to reach the conclusions in his report. Whether he used the "best" available data is an issue for another day. The

Court denies defendants' motion to exclude Dr. Singer.

B. Remaining motions to exclude

Defendants have also moved to exclude the testimony of Dr. George Bulman and Elizabeth Mora. Plaintiffs have moved to exclude the testimony of Dr. Bridget Terry Long and Peter Ammon. As previously stated, the twin concerns under *Daubert* and Federal Rule of Evidence 702 are relevance and reliability. See *Daubert*, 509 U.S. at 594–95. The Supreme Court in *Daubert* also makes clear that Federal Rule of Evidence 403 is applicable to expert testimony, and thus a court should exclude expert testimony "if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury." *Id.* at 595 (quoting Fed. R. Evid. 403).

The Court will first address defendants' motion to exclude Dr. Bulman and Ms. Mora before proceeding to address plaintiffs' motions regarding Dr. Long and Mr. Ammon.

1. Defendants' motion to exclude

a. Dr. Bulman

Defendants contend that Dr. Bulman offers the following three opinions, all of which defendants seek to exclude: "(1) defendants experienced substantial endowment growth; (2) defendants spent less on financial aid out of their endowment returns once the Class Period began; and (3) defendants could have spent more on financial aid." Defs.' Mem. in Supp. of Mot. to Exclude at 28. According to defendants, Dr. Bulman's second opinion should be excluded because his analysis utilizes an unreliable methodology, and Dr. Bulman's first and third opinions should be excluded "because

they are irrelevant factual summaries that would confuse the jury; they are not expert opinions." *Id.*

i. Dr. Bulman's second opinion

Defendants raise two main issues regarding Dr. Bulman's methodology. First, Bulman's regression examines the relationship between excess returns from defendants' endowments and financial aid. In his report, Bulman defines excess returns as returns that "exceed the target spending rate from the endowment and inflation." Bulman Rep. ¶ 33. But defendants argue that Dr. Bulman's regression actually shows a relationship between financial aid and endowment levels *generally*. According to defendants, Dr. Bulman never states that excess returns directly affect financial aid. Instead, he opines that "institutions with high investment returns could use their enhanced wealth to reduce their list price or offer more generous institutional aid to attract students," *id.* ¶ 32, and that "excess returns might increase student aid . . . through greater endowment levels," Bulman Rebuttal Rep. ¶ 62. But endowment levels, defendants contend, are not the same metric as excess returns, and therefore Bulman's regression is disconnected from the conclusions offered in his expert report. Defendants also contend that Bulman's methodology for his expert report in this action conflicts with his own research from 2022, which "uses an instrumental variable strategy to measure how endowment levels—not 'excess returns'—affect financial aid." Defs.' Mem. in Supp. of Mot. to Exclude at 29. According to defendants, "[t]he unexplained inconsistency between Bulman's professional work and his paid testimony undermines the reliability of his opinion and creates the kind of 'junky' analysis that *Daubert* forbids." *Id.* at 30.

Plaintiffs counter defendants' challenge to Dr. Bulman's opinion regarding endowment growth by contending that all of defendants' issues with this opinion are disputes for the jury to address and are not proper bases for exclusion under *Daubert* and Rule 702. Plaintiffs contend that Bulman's work in 2022 "answered a different question using different data" and that defendants take Bulman's statements from his deposition out of context. Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 30.

The Court finds that Bulman has applied a reliable methodology and that it is not contradicted by his prior work. A good deal of what defendants argue amounts to issues with Bulman's regression specifications and the specific data that he determined to use as variables. But as explained earlier when addressing the motion to exclude Dr. Singer's testimony, issues over the appropriate data inputs are matters for the jury to assess, not a basis for exclusion. Bulman explains why he did not apply the same methodology used in his 2022 paper, and the Court is not persuaded that these explanations are mere pretense. Bulman's methodology is reliable and therefore his opinions are not inadmissible on this basis.

ii. Dr. Bulman's first and third opinions

Defendants argue that Dr. Bulman's opinions concerning defendants' endowment growth and spending potential regarding financial aid should be excluded because "[n]either of these opinions is based on any specialized knowledge or expertise." Defs.' Mem. in Supp. of Mot. to Exclude at 31.

Dr. Bulman's opinion regarding endowment growth is that "[d]efendants experienced substantial investment returns and endowment growth" based on "some basic available data regarding the size and growth of defendants' endowments, and

their investment returns on these endowments over the past three decades," adjusted for inflation. Bulman Rep. ¶¶ 9(a), 23–31. Defendants contend that "[a]ny layperson would understand from the underlying data that defendants' investment returns have grown over time" and thus that this opinion is not based on any specialized knowledge, as required under Rule 702. Defs.' Mem. in Supp. of Mot. to Exclude at 31; *see also* Fed. R. Evid. 702(a) ("[T]he expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue"). Defendants further contend that this opinion is irrelevant because "defendants' historical endowment levels and investment return rates have no relation to any of the six components of the 'challenged conduct,'" and thus this opinion will not assist the trier of fact in determining a fact in issue. Defs.' Mem. in Supp. of Mot. to Exclude at 31. Finally, defendants argue that Dr. Bulman's opinion regarding "substantial" endowment growth will confuse the jury because such an opinion "invites the jury to disregard the issue of liability and base its decision solely on defendants' resources." *Id.* at 32.

Plaintiffs contend that Dr. Bulman's analysis regarding endowment growth "involved far more than summarizing facts for a few hours like the cases [defendants] cite" and is not something a layperson could have done. Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 32–33. According to plaintiffs, "Dr. Bulman constructed a 32-year history of institutional endowment levels, returns, composition, and spending which involved reviewing and weaving together several data sources, including surveys, IRS filings, and institutional annual reports all with differing reporting standards." *Id.* at 32.

Defendants raise near-identical challenges to Dr. Bulman's opinion regarding

defendants' capacity to spend more on financial aid due to the endowment growth. Defendants assert that Dr. Bulman "readily admits that he has no experience in managing a college or university endowment" and that he did not "review depositions where plaintiffs asked defendants' employees about endowments." *Id.* Accordingly, defendants contend that Dr. Bulman's opinion does not come from any specialized knowledge, is irrelevant to issues in the case, and risks confusing the jury.

The Court concludes that Dr. Bulman may permissibly offer the challenged testimony. The nature and extent of defendants' endowment growth involves more than simply tallying up numbers; Dr. Bulman had to sort through years of data and organize and clean it so that it would be understandable to a layperson. Bulman utilizes his knowledge and experience to extrapolate from different data sources to reach the conclusions presented in his report. Bulman's report indicates that he will not take the stand to merely recite and summarize facts; he will use his expertise in economics and econometrics to discuss defendants' endowments. This testimony will assist the jury, as this case involves complex theories of economics and pulling together huge swaths of data over extended periods of time.

For these reasons, the Court finds that Dr. Bulman is qualified to proffer the challenged testimony and that he employs reliable methods to reach the conclusions contained in his report. The Court therefore denies defendants' motion to preclude his testimony.

b. Elizabeth Mora

Defendants also move to exclude the testimony of Elizabeth Mora "in full," which specifically includes her opinions concerning how "defendants are 'akin' to for-profit

businesses, how and why they offer financial aid, how they compete with one another, and how they can and do manage revenues and endowments." Defs.' Mem. in Supp. of Mot. to Exclude at 32. Defendants contend that Ms. Mora is unqualified to offer these opinions due to a lack of experience and insufficient analysis of the record and that her opinions are irrelevant.

i. Whether defendants are akin to for-profit businesses

Defendants first seek to exclude Mora's testimony that defendants are akin to for-profit businesses, arguing both that this is irrelevant and that Mora is unqualified to offer the testimony. Defendants specifically assert that Ms. Mora has "zero expertise" "in the study of the corporate form and governance," "no relevant educational background," and "no relevant work experience." *Id.* at 33. They further contend that Ms. Mora "cannot point to any literature relying on the attributes she says identify a company as akin to a for-profit," and thus "her method of highlighting attributes . . . consisted of randomly picking those that 'seem[ed] to [her] to be the most obvious.'" *Id.* at 33–34 (quoting Mora Dep. at 91:8–16). Mora's opinion regarding these attributes is made more unreliable, defendants contend, because "[t]his opinion also depends on Mora knowing which attributes defendants possess." *Id.* at 34. Defendants assert that the extent of Mora's knowledge regarding whether defendants possess attributes that would make them akin to for-profit businesses is based on "a vague recollection of a handful of 'ad hoc' conversations she had more than 15 years ago." *Id.* According to defendants, Mora did not conduct an individualized analysis of each defendant and "instead surmis[ed] that the present defendants are 'like Harvard[]' . . . based on a review of 12 record documents and 2 deposition transcripts." *Id.*

Plaintiffs respond to this by arguing that Ms. Mora is qualified to offer this opinion based on her work experience. See *United States v. Parkhurst*, 865 F.3d 509, 516 (7th Cir. 2017); *Jordan v. City of Chicago*, No. 08 C 6902, 2012 WL 254243, at *3 (N.D. Ill. Jan. 27, 2012) ("An expert may be qualified to render opinions based on experience alone."). Specifically, plaintiffs contend that Mora's "work experience across university (including in endowment-related roles and as Harvard's Chief Financial Officer), non-profit, and for-profit institutional leadership qualifies her to opine on the comparative organizational attributes of Defendant universities and for-profit enterprises." Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 34. Plaintiffs also argue that this opinion will help the jury to understand defendants' motivations regarding their endowments by illustrating how defendants may behave like a for-profit enterprise as Mora contends Harvard does.

The Court is persuaded that Ms. Mora is qualified to offer opinions regarding whether defendants are akin to for-profit businesses. Mora has worked extensively in both the non-profit and for-profit sectors, as well as, through her time at Harvard, gaining insight into how elite, private universities operate. Further, her testimony will assist the jury by helping it to understand the business side of how a private university with a large endowment may operate. Mora's report indicates that her knowledge comes from her work experience and review of defendants' "operational data." *Id.* (citing Mora Rep., App'x D).

Regarding Ms. Mora's qualifications, her work experience includes eleven years at Harvard University from 1997 to 2008. During this period, she served as Chief Financial Officer from 2006 through 2008; her responsibilities in that role included

managing Harvard's "budgets, reporting, audits, internal audits, sponsored research, interdepartmental money transfers, and school assessments." Mora Rep. ¶ 11. In this role, Mora also served as Harvard's "liaison to and sat on the board of directors of the Harvard Management Company (HMC), which managed the endowments of the University and its various schools." *Id.* ¶ 12. In addition to her inward-facing responsibilities, Mora attended forums where representatives of the defendants were frequently also in attendance. These forums met "two or three times a year to discuss recent events and compare campaigns, endowment-related issues (such as endowment growth and earnings performance), research funding, [and] capital expansion." *Id.* ¶ 17.

Ms. Mora also reviewed material provided by the defendants, outlined in her report in Appendix D. *See id.*, App'x D. This material includes annual reports and endowment reports from defendants for the 2022 fiscal year. Though this is only a single year's worth of data, the Court has already discussed, earlier in this decision, that arguments regarding the quality of the data relied upon are for the jury in assessing the credibility and weight of the testimony, not for the Court. *See Manpower*, 732 F.3d at 806 ("Reliability, however, is primarily a question of the validity of the methodology employed by an expert, not the quality of the data used in applying the methodology."). That aside, the cited materials are also not the only knowledge that Mora relies upon to draw her conclusion that defendants operate in a manner akin to for-profit businesses. She has years of experience, including attending forums with defendants to discuss endowment-related issues. This is not an instance where an expert is relying on data so insufficient that it lacks reliability. *See id.* at 808 ("Rule 702's requirement that expert opinions be supported by 'sufficient facts or data' means 'that the expert considered

sufficient data to employ the methodology'" (quoting *Stollings*, 725 F.3d at 766)). The Court's role here is to determine whether there is "a rational connection between the data and the opinion," *id.* at 809, and here, there is.

Though defendants are correct that Ms. Mora only worked at Harvard for a limited time some years ago, and that she reviewed a limited number of documents, this affects the weight to be given to her testimony, not its admissibility. Plaintiffs are correct that challenging Mora's opinion on this basis is properly done on cross-examination.

ii. The purposes of financial aid

Defendants next contend that Ms. Mora's testimony regarding how and why the defendants offer financial aid is irrelevant and unreliable due to her lack of relevant experience. Defendants specifically contend that Mora bases this opinion on anecdotal evidence and that "she has neither studied why defendants or others award financial aid, nor reviewed evidence or literature" as a basis for this particular opinion. Defs.' Mem. in Supp. of Mot. to Exclude at 35.

Plaintiffs argue that this testimony is relevant to determining whether to apply the *per se* or Rule of Reason analysis to the antitrust claims in this case. They also repeat their contention that Mora is qualified to proffer this opinion due to her work experience and review of certain documents regarding defendants' operational practices.

Again, the Court finds defendants' arguments unpersuasive. Simply because Ms. Mora derived this opinion from experience, which includes both her own work and attending forums alongside representatives of the defendants while at Harvard, does not make her unqualified to offer it. Further, the suit centers on how and why defendants offer the specific financial aid packages they do. Arguments that opinions

on these topics would not aid the jury in determining whether defendants would be motivated to engage in the alleged conspiracy and how they might (or might not) utilize their endowments when offering aid are unavailing.

iii. Flexibility in using endowments and competition

Finally, defendants argue that Ms. Mora is unqualified to offer the opinion that "defendants have 'flexibility' to manage and spend 'revenues and endowment earnings' and 'compete with each other' in certain ways," due to both a lack of experience and insufficient methodology. *Id.* (quoting Mora Rep. ¶ 5). According to defendants, Mora's "opinions about defendants' budgets and endowments rely almost entirely on 'ad hoc' conversations" and that in reaching her "opinion on defendants' various revenue streams, . . . Mora 'did not undertake an analysis for the 17 Defendants' of the availability, size, or flexibility of any revenue stream for any defendant." *Id.* (quoting Mora Dep. at 161:10–163:11, 164:15–165:4). In other words, defendants contend that Mora lacks the experience to offer these opinions and did not utilize reliable information or "methodology," which may have compounded her lack of experience. *Id.*

Plaintiffs again assert that Ms. Mora's work experience does qualify her to offer these opinions and that she did utilize "Defendant-specific data," including "endowment reports and annual reports, . . . as well as revenues and organizational characteristics." Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 35. Defendants counter this assertion by arguing that this amounts to a review of "operational data," which does not address the availability, size, or flexibility of endowments, including any restrictions on endowment funds. Defs.' Reply in Supp. of Mot. to Exclude at 20.

At this juncture, the Court is not persuaded that Ms. Mora's testimony regarding

endowments and competition is unreliable such that she should be excluded under *Daubert* and Rule 702. It is of little import whether Mora utilizes a specific "methodology" to formulate her opinions on these points; "Rule 702 specifically contemplates the admission of testimony by experts whose knowledge is based on experience." *Walker v. Soo Line R.R. Co.*, 208 F.3d 581, 591 (7th Cir. 2000); *see also Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 153 (1999) ("[N]o one denies that an expert might draw a conclusion from a set of observations based on extensive and specialized experience."); *Metavante Corp. v. Emigrant Sav. Bank*, 619 F.3d 748, 761 (7th Cir. 2010) ("An expert's testimony is not unreliable simply because it is founded on his experience rather than on data . . .").

While working at Harvard, Mora compared "Harvard to MIT and other elite, private universities, on metrics such as endowment dollar per student and revenue-generating activities." Pls.' Mem. in Opp. to Defs.' Mot. to Exclude at 35 (citing Mora Rep. ¶¶ 54, 58–68). In addition to this experience, Mora has reviewed defendant-specific data, as described above. This is a sufficient basis of experience and knowledge to enable Mora to appropriately testify about potential flexibility in endowment spending and competition among institutions like defendants.

As discussed above, Mora's qualifications have been thoroughly vetted. The Court concludes that she is within her relevant experience and knowledge-base to offer the opinions and conclusions provided in her report. Therefore, the Court denies defendants' motion to exclude relating to her testimony.

To summarize: the Court is persuaded that plaintiffs have established that each challenged expert is qualified to offer the testimony contained in their respective expert

reports. Further, the Court finds that the methods employed by these experts to reach their proffered conclusions are reliable and of the sort that other experts in their field would utilize. The Court therefore denies defendants' motions to exclude relating to Dr. Singer, Dr. Bulman, and Ms. Mora.

2. Plaintiffs' motions to exclude

Plaintiffs have filed two separate motions to exclude defendants' expert witnesses. The Court will address each in turn.

a. Dr. Long

Plaintiffs first move to exclude specific testimony proffered by Dr. Bridget Terry Long under *Daubert* and Rules 702, 402, and 403. For the following reasons, the Court concludes that none of plaintiffs' arguments warrant excluding the challenged testimony.

Dr. Long holds a Ph.D. in economics and is a professor of education and economics at the Harvard Graduate School of Education. Defendants offer Dr. Long to testify regarding a range of topics. Plaintiffs do not challenge Dr. Long's qualifications and seek only to exclude her testimony regarding "three purported benefits of the 568 Group: increased 'access' to higher education for low-income students, increased 'equity' in financial aid, and increased socioeconomic diversity at Defendants' universities." Pls.' Mem. in Supp. of Mot. to Exclude Dr. Long at 1.

Plaintiffs assert that Dr. Long's testimony "regarding these purported benefits would not assist the jury and is therefore inadmissible under Rules 702, 402, and 403" for three reasons. *Id.* First, plaintiffs contend that federal antitrust law permits defendants only to "justify their horizontal agreement restraining price competition by demonstrating that the restraints furthered some end that enhanced competition." *Id.*;

see *Nat'l Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 692 (1978) ("[T]he purpose of the analysis [under the Sherman Act] is to form a judgment about the competitive significance of a restraint; it is not to decide whether a policy favoring competition is in the public interest, or in the interest of the members of an industry."). Because the proffered benefits of increased access, equity, and socioeconomic diversity do not enhance competition between or among defendants, plaintiffs argue, Dr. Long's testimony on these subjects involves "the kind of 'social objectives beyond enhancing competition' that the Supreme Court has 'regularly' characterized as irrelevant to antitrust analysis." Pls.' Mem. in Supp. of Mot. to Exclude Dr. Long at 1. And irrelevant evidence is inadmissible under Rules 702 and 402. See Fed. R. Evid. 702 (permitting experts to testify so long as their opinions "will help the trier of fact to understand the evidence or to determine a fact in issue"); *id.* 402 ("Irrelevant evidence is not admissible.").

The Court is not persuaded that Dr. Long's testimony is irrelevant, irrespective of which method of antitrust analysis (*per se* or Rule of Reason) the Court ultimately concludes is appropriate. Dr. Long explains that students have myriad reasons why they may wish to attend one school over another, and these reasons include certain values that the schools claim to embody. Accordingly, then, Dr. Long contends that the social objectives can, and do, promote competition by making schools attractive to a certain type of student.

Second, plaintiffs contend that these so-called social objectives are further irrelevant because Dr. Long "admits that Defendants' horizontal agreement is unnecessary to achieve increased access, equity, and socioeconomic diversity." Pls.'

Mem. in Supp. of Mot. to Exclude Dr. Long at 2. According to plaintiffs, then, "those benefits cannot serve to justify the challenged conduct." *Id.* Put differently, any procompetitive benefits that Dr. Long contends may be derived from defendants' social objectives could also be obtained without the "horizontal agreement." Therefore, plaintiffs argue, the horizontal agreement itself does not actually produce these social benefits and in turn does not have a procompetitive justification.

Though plaintiffs have a viable point here, the Court declines to conclude at this juncture that Dr. Long's testimony is impermissible. As the Court has explained, Dr. Long does identify at least a plausible relationship between the social objectives defendants claim to promote and procompetitive benefits. In other words, the Court finds relevant Dr. Long's contention that defendants' social objectives make their schools more attractive to certain students who may want a more socioeconomically diverse student body. Specific limitations upon Dr. Long's testimony along the lines of plaintiffs' motion can be addressed during the pretrial phase should developments indicate that her challenged testimony is, in fact, irrelevant to any material issue.

Finally, plaintiffs argue that Dr. Long's challenged testimony is ambiguous and equivocal and thus will not help the trier of fact determine a material issue. Plaintiffs contend that this warrants exclusion under Rule 702 and under Rule 403, because the testimony has little or no probative value but "would necessitate time-consuming, complex, and confusing mini-trials on issues that are collateral to, and would distract from, the merits." *Id.* at 17 n.8; see Fed. R. Evid. 403 (permitting a court to "exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue

delay, wasting time, or needlessly presenting cumulative evidence").

The Court does not agree that Dr. Long's opinions regarding the benefits of increased access and socioeconomic diversity are so speculative or equivocal that they are appropriately excluded.

Plaintiffs take issue with Dr. Long's concession that it was "unclear whether or not there would have been improvement to the same degree" absent the 568 Group. Pls.' Mem. in Supp. of Mot. to Exclude Dr. Long at 16 (quoting Long Dep. at 103:13–105:10). They also emphasize that Long does not respond to specific questions with a "yes" or a "no," which they contend make her opinions equivocal. But as defendants point out in their opposition brief, plaintiffs' own experts "frequently addressed 'yes-or-no' deposition questions with caveated and context-providing answers." Defs.' Mem. in Opp. to Pls.' Mot. to Exclude Dr. Long at 20; see *also id.* at 20 n.2 (collecting instances in Dr. Singer's, Dr. Bulman's, and Ms. Mora's depositions where they allegedly gave "caveated and context-providing answers" to yes-or-no questions).

The Court pauses here to note that each side has extensively challenged the manner in which their opponents' experts answer questions on what amounts to cross-examination. The Court's job at this juncture, however, is to assess whether an expert's testimony is relevant and reliable based on qualifications and reliability; the Court does not determine the weight that should be given to such testimony, which is a function of the jury. The Court is confident of two things: first, that it will be able to exercise its authority during trial to strike or preclude non-responsive answers, and second, that the jury will be fully capable of assessing whether an expert's caveated and long-winded answers make his or her testimony less persuasive.

Reviewing the specific statements at issue regarding Dr. Long, the Court does not find her explanations so equivocal such that they will confuse the jury or result in undue delay or waste of time.

In sum, the Court is not persuaded by any of plaintiffs' arguments regarding the challenged testimony of Dr. Long. Accordingly, the Court denies their motion to exclude regarding Dr. Long.

b. Peter Ammon

Plaintiffs have also moved to exclude the testimony of Peter Ammon under *Daubert* and Rule 702. Mr. Ammon is the Chief Investment Officer (CIO) at Penn. Plaintiffs say that Ammon has been retained to rebut the opinions offered in Dr. Bulman's report with regard to Penn but that he is not qualified to offer these opinions. According to plaintiffs, Mr. Ammon lacks the requisite education, "training, experience, or expertise to render competent opinions on Dr. Bulman's analyses." Pls.' Mem. in Supp. of Mot. to Exclude Peter Ammon at 3. Plaintiffs further argue that "Penn proffered Mr. Ammon's opinions after the close of fact discovery and in rebuttal to the timely disclosed report and analyses of Plaintiffs' economic expert Prof. George Bulman, Ph.D." *Id.* at 1.

Though plaintiffs move to exclude Ammon under Rule 702 and *Daubert*, see *id.* at 1, they also raise an issue regarding the timing and nature of Ammon's disclosure under Federal Rule of Civil Procedure 26(a)(2)(C). Plaintiffs contend that the nature of Ammon's testimony, in which he seeks to rebut certain conclusions drawn by Dr. Bulman, makes him a retained, as opposed to a non-retained, expert witness. Under Rule 26(a)(2)(B), any expert witness who is "retained or specially employed to provide

expert testimony" must prepare and sign a "written report." Fed. R. Civ. P. 26(a)(2)(B). To comply with the Rule's requirements, this written report must contain certain specified information. See *id.* 26(a)(2)(B)(i)–(vi). For any other opinion witness, the proffering party must disclose simply "the subject matter on which the witness is expected to present evidence" and "a summary of facts and opinions to which the witness is expected to testify." *Id.* 26(a)(2)(C).

The Court finds that Ammon is qualified to offer the opinions contained in his disclosure, and that he is not properly categorized as a retained expert as plaintiffs contend. Reviewing Ammon's disclosure, all of the opinions he offers appear to be based on knowledge and information he obtained while in the ordinary course of his employment as Penn's CIO and not as a result of his reviewing Dr. Bulman's report or otherwise in response to the present suit. See *Beaton v. SpeedyPC Software*, 338 F.R.D. 232, 236 (N.D. Ill. 2021) ("[A] 'hybrid fact/expert witness' [under Rule 26(a)(2)(C)] may not offer opinions based on 'information they learned solely through . . . litigation' but is instead limited to the facts personally known by the witness." (quoting *Indianapolis Airport Auth. v. Travelers Prop. Cas. Co. of Am.*, 849 F.3d 355, 370–71 (7th Cir. 2017))). It is well established that an expert may be qualified by experience, and that is precisely what Ammon relies upon to base his proffered testimony.

i. Daubert and Rule 702

Beginning with Ammon's qualifications, he has served as Penn's CIO since 2013. Prior to his employment at Penn, Ammon worked at the Yale University Investments Office. He holds an MBA from Yale University. Ammon attests that in his capacity as CIO, he has "personal knowledge of Penn's endowment investment returns" due to his

"extensive experience managing the investment of Penn's endowment funds." Ammon Rule 26(a)(2)(C) Disclosure ¶ 3. Ammon currently leads Penn's Office of Investments, which "has been delegated authority to recommend investment strategy (including strategic asset allocation), select and appoint investment managers, directly manage assets, and take any other actions necessary to carry out those responsibilities." *Id.* He has held this leadership role for the last ten years. All of this experience has provided Ammon with "specialized technical knowledge of the composition and performance of Penn's endowment investment portfolio; the strategic considerations, institutional priorities, and financial factors that guide and constrain Penn's investment decisions; and the market conditions in which Penn operates." *Id.* ¶ 5.

Looking to Ammon's disclosure, he intends to offer opinions "regarding inaccurate and misleading statements in the Bulman Report." *Id.* ¶ 7. All of these opinions appear to be derived from Ammon's experience serving as Penn's Chief Investment Officer. Simply because Ammon seeks to rebut certain statements in Bulman's report does not mean his knowledge is derived from that report. Rather, Ammon's disclosure indicates that he will testify that the data used and conclusions reached in Bulman's report do not comport with the reality of Penn's endowment and policies as Ammon understands them after more than a decade of working at Penn. For instance, Ammon intends to "testify that Dr. Bulman inaccurately analyzes the availability of endowment funds for use for financial aid." *Id.* ¶ 7(a). But he does not seek to do so by challenging Bulman's regression model itself. Instead, Ammon will testify based on his independent knowledge and understanding about the "restrictions" that "govern[]" use of endowment returns as "set forth in the gift agreement at the time

the funds were donated to [Penn]." *Id.* Therefore, Ammon's rebuttal opinion does not take issue with Bulman's opinions based on any specialized understanding of economics, but rather on Ammon's own knowledge regarding how Penn's endowment funds operate. Bulman's conclusions thus will not be challenged based on "statistical expertise." Pls.' Mem. in Supp. of Mot. to Exclude Ammon at 3. Rather, Bulman's conclusion will be challenged based on the contention that his report uses inaccurate data, a rebuttal conclusion that Ammon is qualified by experience to offer.

Ammon also intends to testify that, "contrary to the implication in Dr. Bulman's report, Penn dramatically increased endowment spending in support of undergraduate financial aid from 2003 to 2019." Ammon Rule 26(a)(2)(C) Disclosure ¶ 7(c). Clearly, Ammon's knowledge regarding Penn's increased endowment spending was not derived from reading Dr. Bulman's report, nor does it require any specialized expertise beyond his own work experience at Penn.

Ammon's disclosure does affirmatively indicate that he will critique Bulman's regression analysis. But such critiques do not require a specialized expertise in economics, nor is Ammon unqualified to offer the critiques contained in his disclosure simply because he does not have a Ph.D. in economics. Ammon's disclosure states that he plans to testify that Bulman's regression analysis is "undermined by Penn's demonstrated commitment to supporting financial aid even during periods of weak endowment returns." *Id.* ¶ 7(e). This quite obviously is not the same as critiquing the methodology or data that Bulman utilized in his regression. Rather, the only specialized knowledge that Ammon requires to offer this opinion is his knowledge regarding Penn's financial aid spending during periods of weak endowment returns—knowledge that he

has gained from his experience working for Penn.

The closest that Ammon arguably gets to criticizing Bulman's regression itself is his intended testimony that "Bulman's calculation of Defendants' 'excess investment returns' relies on an average endowment spend rate that is not reflective of Penn's actual spending rate from financial aid endowment units." *Id.* ¶ 7(f). But here again, Ammon's knowledge that such a calculation is not reflective of Penn's actual spending rate does not come from Bulman's report itself; it comes from Ammon's experience as Penn's CIO.

ii. Rule 26(a)(2)(B)

The Court's conclusion does not change even if Ammon's proposed testimony does fall under the heading of a retained expert who is subject to the requirements of Rule 26(a)(2)(B). Ammon's disclosure contains all of the requirements of a retained expert report enumerated under Rule 26(a)(2)(B). It contains "a complete statement of all opinions [Ammon] will express and the basis and reasons for them"; it references "the facts or data considered by [Ammon] in forming them"; it includes "any exhibits that will be used to summarize or support" Ammon's opinions; and it provides Ammon's "qualifications" to offer such opinions. Fed. R. Civ. P. 26(a)(2)(B)(i)–(iv); *see also* Ammon Rule 26(a)(2)(C) Disclosure. The only required information not provided in the disclosure is "a list of other cases in which, during the previous 4 years, [Ammon] testified as an expert at trial or by deposition" and "a statement of the compensation to be paid for the study and testimony in the case." Fed. R. Civ. P. 26(a)(2)(B)(v)–(vi). Any such omission, however, is harmless, as it can easily be elicited via deposition or cross-examination.

For these reasons, plaintiffs' arguments to exclude Ammon are unavailing; the Court denies their motion to exclude his testimony.

Conclusion

In conclusion, the Court denies plaintiffs' motions to exclude Dr. Long and Mr. Ammon [dkt. nos. 750, 751] and also denies defendants' motion to exclude Dr. Singer, Dr. Bulman, and Ms. Mora [dkt. 755].


MATTHEW F. KENNELLY
United States District Judge

Date: September 29, 2025